

**Claims**

- 1 1. An automatic wire threader, for threading a wire  
2 electrode through upper and lower wire guides, comprising:  
3 upper and lower energized electrodes for supplying  
4 heating current to the wire electrode, provided above the upper  
5 wire guide;  
6 a vertically moveable guide pipe through which the wire  
7 electrode can pass, provided between the upper and lower  
8 energized electrodes;  
9 a heat retention unit, having a through hole through  
10 which the guide pipe can pass, provided between the upper and  
11 lower energized electrodes;  
12 a coolant supply unit for supplying coolant for cooling  
13 the wire electrode in the guide pipe; and  
14 a blocking fluid supply unit for supplying blocking  
15 fluid for preventing coolant flowing into the through hole of  
16 the heat retention unit.
- 1 2. The automatic wire threader of claim 1 further  
2 comprising a nozzle for generating a flow of blocking fluid  
3 traversing the wire electrode in a gap formed between the guide  
4 pipe and the heat retention unit.
- 1 3. An automatic wire threader, for threading a wire  
2 electrode through upper and lower wire guides, comprising:  
3 upper and lower energized electrodes for supplying  
4 heating current to the wire electrode, provided above the upper  
5 wire guide;  
6 a vertically moveable guide pipe through which the wire  
7 electrode can pass, provided between the upper and lower

8        energized electrodes;

9            a heat retention unit, having a through hole through

10    which the guide pipe can pass, provided between the upper and

11    lower energized electrodes;

12            a coolant supply unit for supplying coolant for cooling

13    the wire electrode in the guide pipe; and

14            a blocking plate for preventing coolant flowing into

15    the through hole of the heat retention unit.